Sacro-coccigeal Pilonidalis Fistula's management

Cocchiara G, Lauria Lauria G., Scozia A.S., Di Vita G.

Cattedra di Semeiotica e Metodologia Chirurgica (Titolare: Prof. G. Di Vita) Università di Palermo

INTRODUCTION

Pilonidal sinus is a benigne disease localised almost exclusively at the sacrococcigeo level, constituited by a cist and/or fistulous track containing hairs in 50% of cases. Fistula always represent the result of the abscessual complicance of pilonidalis cist usually unknow until infection.Various treatments have been proposed, but the ideal treatment should consent a rapid recovery with minimal discomfort of the patient , low relapse rate and early return to normal activity.

MATERIALS AND METHODS

25 patients effected with pilonidal fistula localised at the sacrococcigeo level underwent surgical treatment, with local anasthesia.The patients were randomly subdivided into 2 groups. The first group was made of 12 units and managed with Lord-Millar treatment. This method consist, after infiltration of anasthetic solution, probing and injectioning methilene blue, to perform a single excission leaving only tiny wound. The track is then stretched with forceps and brushed with nylon bristies to remove the hairs and debris.The second group, composed of 13 patients , was treated with primary closure and sucking drainage. Under evaluation were, the average time in hospital, the number of recurrences, time before return to normal activity and the healing time. In the patients from the first group, during the medications there was frequent curettage. The followup varied from a minimum of 36 months to a maximum of 72 months; the data was evaluated through the adaptation of the Student t.

RESULTS

No significant difference was observed between the ages and the sexes. All the patients of the first group were discarged about two hours after surgical treatment; in the patients of the second group the average time in hospital was about 2 ± 5 days ($P<0.05$). The time for return to normal activity was 10 ± 20 days in the first group and 12 ± 15 in the second group($p>0.05$). The ealing time was 20 ± 15 days in the first group and 15 ± 10 in the second group ($P<0.05$). Two recurrence were observed: one in the first group and one in the second.

CONCLUSIONS

Even if ealing time resulted much longer then excission with primary closure, we prefer the Lord Millar method because it's easy to perform and always ambulatorial regime.

General Surgery (Session 2)

The management of pancreatic stump after duodenocefalopancreasectomy, a 15-years single institution experience.

F. Polistina, P.Parimbelli, U. Montin, D.F. D'Amico

Università degli studi di Padova Dipartimento di scienze chirurgiche e gastroenterologiche, Istituto di Clinica Chirurgica 1°

Introduction: About the half of morbidity related to duodenocefalo-pancreasectomy (DCP) is related to the pancreatico-enteric anastomosis. Its overall incidence is referred to be of about 15 – 30% with a mortality rate as high as the 30%. We hereby analyze, on the basis of a retrospective study, factors influencing such morbidity in 66 consecutive DCPs performed at a single institution.

Patients and methods: At the first department of surgery of Padua school of medicine between January 1984 and December 1998, 66 patients underwent DCP. Choice of type of resection were performed on the diagnostic basis and local characteristics, reconstruction has always been done on the basis of the characteristics of the stump. On a retrospective fashion, patients have been divided in two groups; Group 1: direct anastomosis only, Group 2: tutored anastomosis plus Somatostatin continuous infusion at 6 mg/24 hours starting intraoperatively on to postoperative day 8. In group 1 were included 29 patients and 37 in group 2. Morbidity rate of pancreatico-enteric anastomosis in both groups were compared with regard to: patient's sex, age and performance status; presence or absence of malignancy, type of reconstructive technique adopted with particular regard to the patient's group of treatment.

Results: pancreatico-jejunal anastomosis was the only reconstructive procedure adopted, it was performed in a classic termino-terminal way in 11 cases, by the Hunt's modified technique in 11 and by a termino-lateral fashion in 44. Neither pancreatico-gastrostomy nor injection of the pancreatic duct were ever used. Overall pancreatico-jejunal related morbidity accounted for 21.2% (24.7% in group 1 and 18.9% in group 2) with 13.6% of fistulas (20.6% in group 1 and 8.1% in group 2) and 7.5% dehiscences (10.3% in group 1 and 5.4% in group 2). No statistically significant differences were found between the two groups. Overall peroperative mortality was 3% and 9.4% in the subgroup of complicated patients. From uni- and multivariate statistical analysis, only the presence of cancer and the low performance status of the patients significantly correlated with an higher anastomotic morbidity. The use of anastomotic tutor and somatostatin administration seemed to be effective in reducing morbidity even if a statistical significance was not reached.

Conclusion: In the last two decades, the incidence of complicances related to DCP has fallen to low levels, this is due to a more experienced management by trained surgical teams and to the biotechnological progress. It seems that the final results, however, still mainly depends upon the presence of cancer and the patient's performance status at operation.

ADENOMA AND ADENOMATOSIS: A BENIGN PATHOLOGY WITH A SURGICAL DIMENSION

Zanus G., Tedeschi U., Cillo U., Boccagni P., Brolese A., Gringeri E., Veroux M., Bassanello M., Bonariol L., Urbani L., Montin U., D.F. D'Amico.

Department of Gastroenterological and Surgical Sciences – Padova, Italy

Introduction: The improvement in the liver imaging technique allow a striking increase in early diagnosis of hepatic lesions. The main problem deal with the differential diagnosis between benign and malignant neoplasms. Liver adenoma has raised a great interest in this framework.

Etiology, causative association with the use of oral contraceptives and anabolic steroid, diagnostic procedure and therapeutic program are the most important issues.

Patients and Methods: 315 liver resections have been performed at the "Istituto di Clinica Chirurgica I" of the University of Padua from 1984 to 1999. 28 resections were carried out for liver adenoma. The patients, aged between 10 and 46 years (mean age 32 years) were mainly females (94%) and had an adenomatous lesion ranging from 4 to 23 cm in size. 65% of patients were symptomatic, in the remaining 35% the adenoma was detected incidentally. In 65% patients use oral contrapceptives. Preoperative work up included ultrasound guided cytology in 90% of patients. Preoperative cytology was not conclusive in 20% of cases, requiring histologic examination of the surgical specimen. α-FP was normal in all patients. Adenomatosis was present in 7.4%. Surgical procedures consisted of 10 segmentectomies (35.7%), 3 bi-segmentectomies (10.7%), 1 extended left hepatectomy (3.6%), 14 wedge resections (50%). We did not experience post-operative hepatic failure nor liver transplantation in our series.

Results: Postoperative course was uneventful with no relevant complications (2 pleural effusions were treated conservatively). Mean hospital stay was 12 days without intra-perioperative nor late mortality. In 1 case (3%) malignant transformation was incidentally found. Surgical treatment proved to be radical with no evidence of recurrence at 3-year follow up.

Conclusions: The hig risk of malignant transformation, the intratumoral and intraddominal haemorrhage and the diagnostic doubts oblige to resective treatment. Liver transplantation has a function in massive liver substitution or in adenomatosis with liver failure or in α-FP increase in patient with non resectable huge adenoma.

IS SURGERY JUSTIFIED FOR LARGE HEPATOCELLULAR CARCINOMA (HCC)?

Regimbeau JM., Farges O., Santoro R., Shen BY., Hiramatsu K., Duguè L., Sauvanet A., Belghiti J.
Department of Hepato-biliary Surgery- Hopital Beaujon, Clichy, France

HCC develops in most patients on a background of cirrhosis that precludes large resections to be performed. Large HCC have therefore been seldom resected. On the other hand, these large tumors are also considered to be poor indications for arterial chemoembolization and to be contraindications to liver transplantation and percutaneous ethanol injection. Patients with large HCC are therefore usually left untreated.
Between 1985 and 1996, 254 patients underwent resection of non-fibrolamellar HCC. The tumor was less than 5 cm. (small HCC) in 122 patients and larger than 8 cm. (large HCC, rangee 8-25, median 11 cm) in 96 patients (38%). An underlyng chronic liver disease was present in 72 of these 96 patients (fibrosis, n=35, cirrhosis,n=37).
In-hospital mortality following resection of small and large HCC was comparable (11% vs 10%) even after stratifyng patients for age and underlyng liver disease. Large HCC were more frequently symptomatic and associated with vascular invasion (60% and 67%) than small HCC (29% and 30%, p=0.0001). The proportion of multiple tumors (14%) and of palliative resection (65) were comparable. In patients with a chronic liver disease, resection of large HCC was associated with a greater risk of death and recurrence during the first two postoperative years. In the long term however (3-5 years), survival and disease-free survival following resection of small and large HCC were comparable (34 vs. 31% and 25 vs. 21% at 5 years). Similarily, treatment of and survival after the onset of recurrence were not influenced by the size of the initial tumor.
These results suggest that resection of large HCC is justified.

PANCREATICODUODENECTOMY FOR PANCREATIC AND PERIAMPULLARY TUMORS: TECHNICAL CONSIDERATIONS AND RESULTS

Crucitti A., La Greca A., Antinori A., Pirulli P., Consiglio F., Magno S., Antonacci V. and Masetti R.
Dept. of General Surgery, Catholic University, Rome (Italy) - Chief: Prof. A. Picciocchi

Introduction. Pancreaticoduodenectomy (PD) is carried out with increasing frequency for both malignant and benign disease due to remarkable advances in surgical techniques and reduction of early mortality. Surgical options after PD include occlusion of the pancreatic remnant or reconstruction of pancreatico-enteric continuity. Considering the recent improvements in long-term survival after resection, pancreatic reconstruction seems to allow better results in terms of nutritional status and quality of life in these patients. This retrospective study refers to our ten-years surgical experience after PD for malignant disease at the General Surgery Department, Catholic University of Rome.
Methods. Between November 1987 and December 1998, 104 patients underwent PD for malignant pancreatic and periampullary neoplasms. Two patients, treated by occlusion of the pancreatic remnant, were excluded from this study. Of the 102 remaining patients, 66 were male and 36 female. Mean age was 60.7 and median 63 (range 20-81). Site of the tumor was: pancreatic head in 41 patients, Vater's ampulla in 43, distal bile duct in 13, duodenum in 5. Fourty-one patients were resected according to Whipple technique (WPD) and 61 to pylorus-preserving procedure (PPPD). In all patients an i.v. infusion of octreotide was performed till the fifth postoperative day.
Results. Overall postoperative mortality was 4.9% (5/102). Causes of mortality were as follows: obstructive jaundice with acute renal failure (1 case); dehiscence of pancreato-jejunal anastomosis (1 case), gastrointestinal hemorrage (1 case), hemoperitoneum due to hemorrage from the pancreatic stump (1 case) and ruptured hepatic artery aneurysm (1 case). All these patients were affected by periampullary cancer: no postoperative mortality was observed in the pancreatic head cancer group. Overall morbility rate was 45.1% (46/102). Surgically related complications occurred in 34/102 patients (33.3%). The most common complication was pancreatic fistula (10 cases), with a mortality rate of 10% (1/10). A higher specific complication rate (pancreatitis and pancreatic fistula) was observed in distal bile duct and duodenal cancer (group 1: 3/18=16.7%) compared to pancreatic and ampullary tumors (group 2: 8/84=9.5%). This difference was not statistically significant (p=0.3). Analysis of the two reconstructive procedures in terms of surgically related morbility showed no statistical differences (WPD 15/41=36.5% vs PPPD 19/61=31.1%; p=0.4).
Discussion and conclusions. Plenty of technical proposals confirm that digestive reconstruction after PD is one of the most controversial topics in pancreatic surgery. No significant differences were demonstrated, in our experience, between WPD and PPPD. Pancreatic fistula remains one of the most life-threatening complications (mortality rate of 10% in this series). Our retrospective study shows a trend for better short-term results in pancreatic and ampullary cancer, although not statistically significant. Enlargement of the Wirsung and pancreatic sclerosis (often associated with these neoplasms) allow a safe anastomosis, probably responsible for the lower specific morbility rates observed in our series. Reconstruction of pancreatico-enteric continuity seems to be the most physiological solution after PD (1) and offers,in experienced hands, low morbility and mortality rates.
References. 1) Yeo CJ et al. Six hundred fifty consecutive pancreaticoduodenectomies in the 1990s: pathology, complications and outcomes. Ann Surg 1997, 226(3):248-57.

TREATMENT OF HUGE CAVERNOUS HEMANGIOMA OF THE LIVER

AUTHORS: G. Zanus, U. Tedeschi, U. Cillo, P. Boccagni, M. Bassanello, A. Brolese, L. Bonariol, L. Urbani, U. Montin, E. Gringeri, D.F. D'Amico.
Department of Gastroenterological and Surgical Sciences – Padova. Italy

INTRODUCTION: Hemangioma is the most common benign hepatic pathology with a reported prevalence at autopsy of up to 7.3% in 15-20% of cases it may be larger than 10 cm. in size and we call it "Hemangioma permagno".
PATIENTS AND METHODS: Between 1984 and 1998, 120 patients with hepatic hemangioma were assessed at our istitution. 71 patients were followed up conservatively and 49 underwent surgery. In 42 patients (84%) operated upon the lesion was larger than 10 cm. and in 7 (14%) of them the right hepatic lobe was quite replaced. In only 7 patients hemangioma size ranged from 5 to 10 cm. (with atypical behaviour).
RESULTS: Surgical procedures included 12 right hepatectomies, 1 extended right hepatectomy, 9 left hepatectomies, 1 left extended left epatectomy including segment I, 18 bisegmentectomies, 1 middle hepatectomy (segment IV and V) and 7 segmentectomies. Hilar occlusion (Pringle maneuver) was employed in 35 cases (70%), while total vascular isolation was required in only one patient. Cell-saver and rapid infusion system (RIS) but no veno-venous by-pass (BIO-PUMP) were used intraoperatively. No intraoperative mortality nor post-operative liver failure occurred, with a short and long term survival rate of 100% minor complications included 8 pleural effusions treated conservatively.
CONCLUSIONS: Surgical treatment of liver hemangioma (ranging from segmentectomy to liver transplantation) is warranted only for lesions larger than 10 cm. in size, symptomatic or rapidly growing, possibly associated with Kasabach-Merrit syndrome. All hemangioma-like lesions with an atypical behaviour on imaging work-up (about 20%) require surgery, regardless of their size. For hemangiomas less than 10 cm. in size indications for resection are usually determined by the presence of symptoms, the danger of rupture or a rapid growth pattern. Surgical treatment, both liver resection or transplantation, is currently well estabilished and safe.

THE MANAGEMENT OF EXTRA-ABDOMINAL DESMOID TUMORS. Case Report

Borri A., Bontà M, Bencini L, Pernice LM.
Clinica Chirurgica II (Dir.: Prof. G. Allegra), Università degli Studi di Firenze, Policlinico di Careggi

INTRODUCTION: Extra-abdominal Desmoid Tumors (EDT) are rare neoplasms arising from musculoaponeurotic structures; they are locally invasive, with a significant propensity for recurrence after surgical resection. These lesions are lacking of metastatic potential.

METHODS: The patient was a 23 years old woman with an enlarging mass in the proximal segment of the left thigh. She underwent wide local excision of the desmoid tumor - histologically confirmed - that involved the fascia lata laterally. The margin of resection was wide and adeguate, with normal surrounding tissue. Nevertheless, the lesion recurred after fourteen months. The patient underwent second excision followed by brachytherapy in this occasion. Implantation was done at the time of surgery and it was after-loaded with Ir^{192} (35 Gy). She also received supplemental external beam radiation treatment (40 Gy) two months later.

RESULTS: No short term complication of these integrated techniques occurred. After 36 months the patient - evaluated with ultrasound and MRI - is free from disease with excellent limb function.

DISCUSSION: Large series report an overall recurrence rate of 40% for EDT. Recurrences usually occur within one year after treatment. Inadeguate margin of resection is considered by most Authors to be one of the main risk factors for recurrence. Many Authors think that wide local excision is the best choice in the management of primary resectable EDT. In the absence of any prospective randomized trial, Literature seems to consider surgery followed by brachytherapy, the best cure for recurrences.

CONCLUSIONS: We conclude that surgical resection - when feasible - and postoperative interstitial Ir^{192} plus supplemental low-dose external radiation is effective therapy for patients with operable recurrent desmoid tumors.

REFERENCES:

1. Anthony T., Rodriguez-Bigas M.A., Weber T.K., Petrelli J.: Desmoid Tumors. *J. Am. Coll. Surg*.; 182: 369-77, 1996.
2. Goy B.W., Lee S.P., Eilber F., Dorey F., Eckardt J., Fu Y.S., Juillard G.J., Selch M.T.: The role of adjuvant radiotherapy in the treatment of resectable desmoid tumors. *Int. J. Radiat. Oncol. Biol. Phys*.; 39: 659-65, 1997.

PREDICTIVE FACTORS FOR CHOLEDO-CHOLITHIASIS

L. De Angelis, D. Lomanto, F.Carlei, M. Nardovino, P. De Simone, F. Fiocca, A.M. Paganini, R. Scaglioni, V.Ceci, E. Lezoche.
Cattedra di Clinica Chirurgica II, Università "La Sapienza", Rome; Istituto di Scienze Chirurgiche, Università di Ancona, INI Canistro (AQ) – Italy.

Laparoscopic cholecystectomy (LC) substantially increased the routine use of ERCP for pre-op. detection of associated CBD stones (8-12%). But, the incidence of negative exams (about 53%), the increased morbidity, the high cost/efficacy reduced its role in selected cases. On the other hand, the routinary use of intraoperative cholangiography is still controversial and a growing number of studies on predictive clinical and laboratory value of CBD stones have not intraoperative confirmation. Aim of the study is to evaluate the role of predictive factors for associated CBD stones in pts submitted to LC and intraoperative digital cholangiography (IOC). We analyze retrospectively, data from 441 consecutive patients who underwent LC from January 1993 to December 1995: 127 M - 314 F (ratio: 0.4:1) with a mean age 46.38 ± 14.13 (14-85 yrs). The IOC was feasible in 97% of pts (accuracy: 95.3%) and CBD stones were found in about 13 % of these. We divided our pts in two groups, A (58:18 M,40 F; mean age:46.91 ± 16.3 yrs) with CBD stones (IOC positive and CBD stones laparoscopically extracted: trancystic 39; choledocotomy 19) and B (383:109M,274 F; mean age: 46.29 ± 13.8 yrs) without CBD stones. The multivariate analysis (t-test; chi-square test with Yates correction factor; Fisher's exact test) of clinical, laboratory and diagnostic data between the group A and B identified 7 risk factors for CBD stones: direct bilirubin x 1.4 n.v. ($p<0.0034$), amylase x 1.3 ($p<0.0424$), ALT x 1.5 ($p<0.0049$), AST x 1.7 ($p<0.0007$), ALP x 1.7 ($p<0.0011$), previous episode of jaundice ($p<10^{-5}$), US CBD > 7mm ($p<10^{-5}$). The Odds Ratio of these identified factors and accuracy is: dilated CBD (7.1), jaundice (6.9), direct bilirubin (4.24;86%), amylase (5.6; 87%), ALT (3.7;85%), AST (3.2;83%), ALP (3;83%). According to the no. of risk factors: in the group A, pts with at least 1 risk factors are 60.3% (OR:4.74;$p<10^{-5}$) and 39.7 (OR:0.2;$p<10^{-5}$) with none. Spearman correlation between the different risk factors and the incidence of CBD stones is 0.2972 with a T=6.52 and $p<10^{-6}$. This study has identified and validated 7 important predictive parameters for associated CBD stones in pts submitted to LC for symptomatic cholelithiasis and a combination of predictors increases the odds of having bile duct stones Moreover, this data confirm our previously published data that 4% of associated CBD stones are unsuspected and none risk factors can predict them. For that reasons, we suggest to perform IOC routinely not only to detect CBD stones but also to promptly discover intraoperatively anomalous biliary anatomy, bile duct leaks or lesions, benign or malignant biliary stricture.

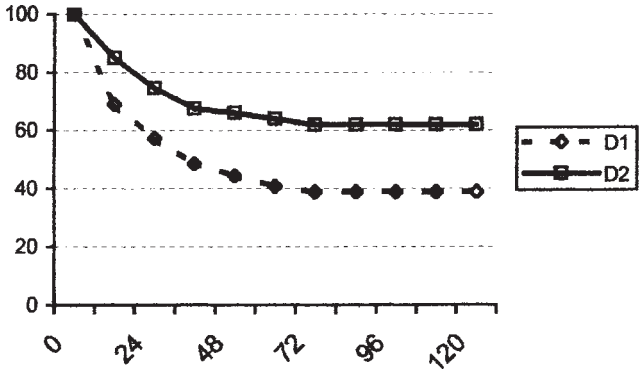
LYMPH NODE DISSECTION AS INDEPENDENT PROGNOSTIC FACTOR FOR GASTRIC CANCER EVEN DURING ITS LEARNING CURVE.

M. Catarci, F. Zaraca, S. Guadagni, L. Montemurro, M. Di Paola, G. Mulieri, P. Alò, D. Giannarelli, M. Carboni.
2^ Clinica Chirurgica, Università "La Sapienza", Roma.

INTRODUCTION: Role and extension of lymph node dissection for gastric cancer are still matter of debate. We reviewed our experience during the learning curve for D_2 lymph node dissection and performed a multivariate analysis of prognostic factors to evaluate its role.

METHODS: A multivariate analysis using the Cox model was performed on 168 patients surgically resected for gastric cancer from 1977 to 1996. This population was selected among 240 consecutive cases surgically treated during the same period.

RESULTS: Independent factors affecting survival at 5 and 10 years were T, N, M, and D (degree of lymph node dissection). No significant difference in morbidity and mortality rates after D_1 vs D_2 lymphadenectomy was observed. Mean survival advantage attributable to D2 over D1 lymphadenectomy was 23.1% at 5 years and 22% at 10 years (Figure).



DISCUSSION: The results of this study confirm that D_2 lymph node dissection can be safely performed and is effective in the surgical control of the disease also during the learning curve.

ILEAL OBSTRUCTION DUE TO INTUSSUSCEPTION BY METASTASES FROM PRIMARY MALIGNANT MELANOMA OF THE LUNG

Beatrice Di Venere, Giuseppe Piccinni, Mario Testini
Clinica Chirurgica I (Dir.: Prof. G.M.Bonomo) University of Bari, Bari (Italy).

INTRODUCTION

Primary malignant melanoma of the lung (PMML) is a quite uncommon tumor, rarely described in literature. We report a case of ileal intussuception due to metastases from a PMML in which the diagnostic criteria (1) to exclude an extrapulmonary origin has been respected.

CASE REPORT

We observed a 44 year-old man with a diagnosis of acute abdomen. During his evaluation we found a right pulmonary roentographic opacity. Further CT evaluation revealed an ileal obstruction, and also a pulmonary nodule with bilateral cerebral multiple metastases. At laparotomy an ileal intussusception was found. We resected about 15 cm. of ileum containing three endoluminal polypoidal formations. Histological and immuno-histochemical analysis of the specimen showed the presence of multiple sites of melanoma. Therefore, bronchoscopy was performed with biopsy of the pulmonary nodule. Histology revealed a melanotic neoplastic process. Immunohistochemical analysis confirmed the diagnosis. Recovery was uneventful and the patient was discharged on the 9th postoperative day. Adjuvant radiotherapy was started. The patient is still alive at 12 months.

DISCUSSION AND CONCLUSION

Only 25 cases have been described in the literature that are acceptable following the criteria (1) proposed for PMML diagnosis which are: solitary tumor in the central part of the lung; a malignant melanoma of the lung with no prior history of excision or fulguration of a cutaneous, ocular, oral , paranasal , esophageal, laryngeal, vaginal, uretral, leptomeningeal or anorectal lesion; no evidence of tumor elsewhere at the time of diagnosis; autopsy confirmation in case of demise; histologic features of melanocytic junctional activity and spreading of melanoma cells in the bronchial epithelium. In our case, all the criteria were satisfied except for autopsy confirmationand invasion of the bronchial epithelium by the melanoma cells. In agreement with Wilson and Moran (2), we do not consider the presence of melanoma cells inside the bronchial epithelium essential for presuming a primary pulmonary origin since the melanocytes can be present in the submucosal bronchial glands and the PMML can originate from this component, without necessarily presenting aspects “in situ”. Although in this case the PMML was already metastatic and surgical and radiotherapy had no curative intent, adjuvant treatment was mandatory due to systemical involvement.

REFERENCES

1. Allen MS, Drash EC. Primary melanoma of the lung. *Cancer* 1968;21:154-9.
2. Wilson RW, Moran CA. Primary melanoma of the lung: a clinicopathologic and immunohistochemical study of eight cases. *Am. J.Surg.Pathol.* 1997;2:1196-1202.

Hereditary Hemorrhagic Teleangiectasia or Rendu- Osler –Weber Disease with exclusive gastrointestinal localization: report of a case.

R. Latino; A. Virzì; R. Pistorio; MG Minardo.
Università degli Studi di Catania, Policlinico Universitario, Divisione di Chirurgia Generale III. Dir: Prof. G. Vagnoni.

Hereditary haemorrhagic telangiectasia (HHT),or Rendu-Osler-Weber is an autosomal vascular disorder caracterized by epistaxis mucocutaneous and visceral telangectases, and recurrent haemorrhage whith chronic anaemia and visceral shuntings associated with the presence of arteriovenous malformations (AVMs) in multiple organ systems is autosomal dominant disorder gene localizzated to 9q33-q34. Germline mutations in one of two different genes, endoglin or ALK 1. HHT is familial tends to affect younger patients. Is reported HHT with exclusive gastrointestinal localization. A case of HHT in 37 years-old male patient presenting with recurrent gastointestinal bleeding who required trasfusion is reported. Endoscopically multiple osler spots were found in the antrum, the bulbal without signs of bleeding. Colonscopy revealed pseudotumoral lesion in the right colon required right emicolectomy. Selective angiography visualized dilatation of the arterial arcardes gastric. Diagnosis is based on family and personal history, telengectasis, laboratory and istrumental findings (endoscopy and roentgen), bleeding scan. Terapy depends on sinptoms. In the patients required right emicolectomy, is effectuated introperative enteroscopy and is revealed lynphangiectases. Push enteroscopy microwave coagulation and ethanol injection and embolization is conventional terapy. In the patient estrogen was orally administrated in the recurrent episodes of bleeding.

References:

Negri E., Monti MA., Secchi GC. - Rendu Osler Weber disease with exclusive gastointestinal localization. Description of a case diagnosed solely with endoscopy. Minerva Dietol Gastronter, 28. 2,1982 Apr-Jun, 163-6.
Hisada T, Kuwabara H, Tisunoda T, Kaneko K, Kubota S, Miwa Y, Mori M. Hereditary hemorrhagic teleangectasia showing severe anemia which was successfully treated with estrogen. Inter Med, 34:6, Jun 1995, 589-92.

RADIOFREQUENCY ABLATION SYSTEM (RFAS): A NEW TOOL CHANGING THE THERAPEUTIC STRATEGIES OF SMALL NODULARITIES OF THE LIVER

Cillo U. – Tedeschi U. – Zanus G. – Boccagni P. – Brolese A. –Bonariol L. – Urbani L. – Bassanello M. – Montin U. – Gringeri E. – Veroux M. – D’Amico D.F.
Department of Gastroenterological and Surgical Sciences — University of Padova (Italy).

INTRODUCTION. Treatment of hepatic nodular malignancies is still a clinical problem in many cases due to the particular anatomic features of the liver. The Radiofrequency Ablation System (RFAS) is a relatively new therapeutic approach of such nodular either primitive or methastatic lesions.
PATIENTS AND METHODS. Form 1989 until the present time 379 HCC patients (on cirrhosis) were treated at our center. Seventytwo patients underwent to surgical resection, 20 to OLTx, 51 to non surgical, non ablative treatment (TACE, TACI), 218 underwent to repeated alcol injections cycles and 19 were treated by RFAS. Among the patients observed for hepatic methastases (Colorectal ca., renal ca., surrenal ca.), 19 out of 214 were treated by RFAS. A R.I.T.A. RFAS was adopted in all cases with a 16 Gauge probe drived percutaneously or intraoperatively under U.S. guidance. Single 12 minutes cycles were used in the majority of the cases. Results were evaluated by CAT scan 15 days after the procedure and in selected cases by FNAB of suspected neoplastic residuals. In 3 cases we adopted i.o. stop flow techniques to enlarge the ablation diameter.
RESULTS. A radical ablation was obtained after treatment of nodules <3 cm. In 4 patients a palliative approach of nodules > 3cm requested multiple RFAS applications (max 3) with 7-15 days intervals.
In 1 case (2.6%) we observed a post-procedure bleeding resolved with conservative treatement. Seven patients (18.4%) experienced fever. No procedure related mortality occurred.
CONCLUSIONS. Although it is too early to draw conclusions on long term results of RFAS in the treatment of hepatic malignancies, in our experience this procedure showed a high dimension dependent ablative efficacy (< 3-3,5 cm), a significant flexibility (percuteneous or intraoperative approach) and a low prevalence of procedure related morbidity. The i.o. stop flow technique and the introduction of new probes will significanly expand the field of applications of this therapeutic approach without probably inducing significant further complications. If compared with the traditional alcol injection approach, this therapeutic tool is efficient also in the treatment of hepatic sencondaries and its efficacy is optimal also in a one shot pattern.

GASTROJEJUNAL RECONSTRUCTION AFTER GASTRIC RESECTION: OUR TECHNIQUE

Fumo F, Delrio P, Marra P, Di Muria A, Di Rosa FP, Palaia R.
Divisione di Oncologia Chirurgica C, Istituto Nazionale dei Tumori "G. Pascale", Napoli - Chief: Prof. V. Parisi

Introduction. Over the last two decades surgical staplers have been increasingly used in abdominal surgery. We have experienced mechanical staplers in the gastrojejunal reconstruction after gastric resection since 1987. Our technique initially consisted in the closure of the gastric stump with a TA 90 and consequent side-to-side anastomosis on the posterior gastric wall with a GIA stapler; we used EEA circular stapler in the Roux-en-Y reconstruction. We have reported two kind of complications related to the different stapler technique: the presence of pseudodiverticulum and pseudovalve by sliding of the mucosa with GIA stapler and the onset of moderate stenosis with EEA stapler. In our opinion these complications were caused by the presence of an anastomosis on only one gastric wall in the first case and by the impossibility of introducing a circular stapler of adequate calibre in the jejunum in the second case. So we decided to perform a mechanical anastomosis on both the gastric walls which could be similar to a manual suture. **Methods**. This technical modification has been performed on 60 patients since 1992 and it is based on the use of a double GIA 80. Nothing changes in the technique of the operation until the time of the anastomosis. Once chosen the jejunal loop, the posterior gastric wall is exposed and by electrocautery two small incisions are made on the stomach and the jejunum. The first GIA 80 is introduced and the anastomosis between the posterior gastric wall and the jejunum is made. The stomach is turned over and the GIA 80 is positioned including the anterior gastric wall and the gastrojejunal anastomosis previously sewn. Both the stomach and part of the jejunal wall are removed, with the creation of two sutures between gastric and jejunal walls, like a hand-sewn suture. **Results**. Out of a total of 60 anastomosis, we report in two patients the persistence of bleeding from the line of the suture as complications directly related to this technique. In both cases bleeding was successfully stopped by endoscopic treatment. Radiological and endoscopic follow-up have shown no morphologic alterations of the suture and good functionality. **Conclusions**. In our opinion the advantages of this technique can be summarised as follows: a) extreme rapidity and facility in the execution; b) reliability of uniformity and resistance of the anastomosis; c) same shape of the manual anastomosis; d) possibility to perform a total or partial oral anastomosis according Billroth or Roux; e) low complication rate.

References

1. Izzo F, Cremona F, Ruffolo F, Palaia R, Delrio P, Parisi V. Mechanical reconstruction after gastric resection. Proposal of a technical modification. 2nd International Gastric Cancer Congress Munich 1997; Vol. 2: 919-921.
2. Parisi V, Palaia R, Cremona F, Ruffolo F, Izzo F. Ricostruzioni meccaniche dopo resezione gastrica. Min Chir 1995; 50: 811-814.

Preliminary results of a multimodal therapeutic protocol for the treatment of patients affected by Hepato Cellular Carcinoma.

Berloco P. §, Borzomati D. §, Altomare V. §, Caricato M. §, Crucitti P.§, Ripetti V. §, Arullani A.,§ Cortesini R. §§
Dep. of Surgery (§) of Campus Bio-Medico, Rome
II Dep. of Surgery (§§), University La Sapienza, Rome

Mini-invasive treatments of patients with Hepato-Cellular Carcinoma (HCC) have been well experimented. Nevertheless Surgical Excision (SE) maintains an important role in the treatment of these patients, while Liver Transplant (LT) is now the treatment of choice in selected cases. The presence of an overlapping of these different therapies is present and comparative studies are still not available. In collaboration with a Transplant Centre and with the Department of Radiology of our University we attempted a multimodal therapeutical protocol for the treatment of HCC that included Alcohol-Injection (AI) or Radiofrequency Thermo-Ablation (RTA), SE and LT. According to number and location of the lesions and to hepatic function (assessed using the Child-Pugh classification) patients were assigned to one of the following therapeutical options:
Group 1: monolateral lesions Child A patients (or without cirrhosis): →SE
Group 2: multiple-bilateral lesions Child A-B-C patients: → AI/RTA
Group 3: single monolateral lesions Child B patients → LT
At our Department 22 patients affected by HCC were observed from November 1995 through December 1998. Twelve (54.5%) were assigned to the Group 1 and underwent SE (1 explorative laparotomy, 2 right- and 1 left-lobe hepatectomy, 3 segmentectomies and 5 wedge resections); perioperative mortality and major morbidity consisted of 8.3% and 25%. Six (27.3%) patients were assigned to the Group 2 (AI/RTA). Three patients underwent AI and three patients RTA with no mortality and an overall morbidity of 16.6%. Finally in 3 (13.6%) patients a LT was indicated (Group 3): 3 patients were transplanted (no morbidity or mortality were recorded in this group of patients). At now 1 patient is waiting to undergo RTA. After a mean follow-up of 12.3 months (1-27 months) 2 (10.5%) patients died for unrelated causes, no patients died for the disease and 14 (73.7%) are alive and free of disease. A 15.8% overall disease recurrence rate was recorded (Group1: 10.5%; Group 2: 5.3%; Group 0 %). The development of multiple therapeutical options for the treatment of HCC patients involves clinical doubts due to an overlapping of these different kinds of treatment. Patients affected by HCC can be properly divided into different groups according to patient's and tumour's features (each group possibly requiring different kinds of treatment). In our Centre we attempted a multimodal therapeutical protocol to offer patients the most safe therapy in order to reduce mortality and morbidity but also to possibly perform a radical treatment. It is however evident that comparative studies are urgently warranted to clarify indications, advantages and limits of these different therapeutic options.

Carcinoid of the ampulla of Vater containing somatostatin: an extremely rare tumor

Maggi U., Gatti S., Ronzoni M.*, Reggiani P., Melada E., Latham L., Fassati LR.
Centro Trapianti Fegato, Ospedale Maggiore IRCCS Policlinico, Milano, e * Servizio di Radioterapia e Oncologia Ospedale S. Raffaele Segrate, Milano ITALY

Introduction. Duodenal carcinoids containing somatostatin are rare, comprising 2% of small bowel carcinoids and 5-10% of all duodenal tumors. We present here a patient with a not usual big-size ampullary carcinoid. **Patient and Methods** A 46-year-old man presented on september 1998 with weight loss, diarrhoea, and jaundice. Past history disclosed a insulin-dependent diabetes mellitus; three episodes of upper gastrointestinal bleeding 13 years before, with a laparatomy and an histological diagnosis of jejunal crohn's disease; three episodes of acute alcoholic pancreatitis occurred 5-10 years before; a left colectomy after perforation of a sigmoid diverticulum; a cerebellar TIA 2 years before. Investigations revealed abnormalities in alkaline phosphatase (1247 IU/L),gamma glutamyl transferase (355 IU/L), alanine transaminase (107 IU/L), aspartate transaminase (84 IU/L), bilirubin (18 mg/dl). Ultrasound of the abdomen revealed a dilation both of intrahepatic biliary system and of the common bile duct, and a 27 X 13 mm epigastric mass. At ERCP a yellowish mass occupying 1/3 of the duodenal lumen was present in the periampullary area, and its biopsies were consistent for neuroendocrine tumor. The major papilla was not cannulable. Thereafter a gut hormone profile was obtained and the value of Somatostatin was 148 pg/ml (n.v.: < 20). No metastatic disease was present at abdominal CT scan and at bone isotope scan. The patient underwent a pancreaticoduodenectomy (whipple's operation) and he's alive and well 3 months after surgery. Subsequent histologic assessment of the resected specimen confirmed a cm 2 x 3 x 3 ampullary carcinoid tumor containing somatostatin. **Discussion and Conclusion** Duodenal somatostatinoma**,** unlike pancreatic forms, rarely produce the so-called somatostatinoma syndrome, and in our case the presence of a jejunal crohn's disease was partially misleading. They tend to be relatively small tumours: in our patient the tumour was quite large and in view of the uncertain prognosis a wide resection was performed and a close follow-up is ongoing.

HCC IN THE CAUDATE LOBE. SURGICAL APPROACH.
Parisi A., Pasquale R., Lucchini R., Guerci L., Rozzi S.
Unità di Malattie del Fegato e delle Vie Biliari – Azienda Ospedaliera "S. Maria", Terni
HCC arising in the caudate lobe are very rare, only 2%. The resecability is less frequent than tumors in other localizations for the anatomic situation and earlier presentation of hepatic and extrahepatic metastasis.
The caudate lobe is located behind the hilum and anteriorly the vena cava and from a surgical wievpoint is worth to associate a major resection or trisegmentectomy but often the functional hepathic reserve makes necessary an isolate resection.In this moment the anatomical view about Spigelian lobe is changing from classical statement:according to the studies of Nimura and collegues the caudate lobe,the "key lobe",is divided into right and left separated by Arantius canal in turn divided in 1c(the old caudate process),1r(cranial portion of the old caudate process) and 1Ls and1Li(old caudate lobe of Couinaud). The dorsal sector is in close connection with retrohepatic portion of the vena cava,no other liver parenchyma takes contact with IVC and is absolutely indipendent by the partition into right and left livers. We describe an isolated resection in a case of trabecular HCC 7x5x3 cm. situated in the segment I (Spigelian lobe-segment 1L) with compression without invasion of the vena cava in a patient with a low hepatic functional reserve accounted preoperatively by MEGX test.Intraoperatory ultrasound, performed before dissection,confirmed the absence of undetected metastasis.After dissection of round,falciform and coronary ligaments,the vena cava inferior and the major hepatic veins are isolated.The right lobe is turned over toward the left and the retrohepatic veins are dissected.Working with blunt manouvers on both sides and surrounding inferior vena cava with a tape, two arterial and biliary branches and three portal branches are divided, performing lobectomy by kellyclasia.No Pringle's manouvre nor blood trasfusions are needed. The patient is disease free two years after the operation.Due to its anatomical localization between hepatic hilum and IVC, the isolate resection of the caudate lobe is very difficult.The major problems in caudate lobe dissection are in the control of the retrohepatic caudate veins and, by a theoretical point of view, is difficult to distinguish on the right the caudate parenchyma by the rigth VII,VIII,IV segments where it does not exist a definite cleavage plain.Yamamoto (1992) reports isolated caudate lobectomy by the transhepatic approach for HCC in cirrotic liver;by the transection of the liver along the interlobar plane, achieved an anatomic caudate lobectomy without loss of functional hepatic parenchyma but the duration of the operation is longer and with more blood loss.
The isolate resection of the caudate lobe is a rare surgical approach but it may be necessary to make suitable for surgery the patients with a low hepatic funcional reserve and the tumors confined in this segment.

General Surgery (Session 3)

Repair of a left hemidiaphragmatic agenesis with a Gore Tex patch
Fei L., Zampiello P., Cosenza A., Renzi A., Maffettone V., Cuttitta D., Barbato D.
Istituto di Clinica Chirurgica Generale e Terapia Chirurgica. Cattedra di Chirurgia Generale (Dir.: prof.: A. Del Genio) Facoltà di Medicina e Chirurgia. Seconda Università di Napoli

Introduzione: Agenesis of hemidiaphragn with herniation of the abdominal content into the thoracic cavity is a rare and usually fatal congenital malformation. To our knowledge only four cases in young adults have reported so far. Our case is therefore the first diagnosed in an elderly patient. The patient had been asymptomatic for a long time and required surgical treatment only after having developed respiratory distress and digestive symptoms. **Methods:** A 69 years-old male presented: early post-prandial tachycardia, dyspepsia, moderate dyspnea and chest pain. There was no history of any trauma or previous chest surgery and family history was unremarkable. Standard chest radiograph showed the presence of the intestines in the left hemithorax. X.-ray barium examination of the upper gastro-intestinal tract and barium enema evidenced herniation of the stomach and the colon into the thoracic cavity. CT scan confirmed this finding. Surgical access was gained through a left subcostal incision prolonged on the right side. The stomach, spleen, left angle of the colon and part of the transverse colon and of the small bowel were found to move freely within the left thoracic cavity. The defect was corrected with a 2 mm thick ePTFE patch; it was attached, tension-free, to the diaphragmatic vestige, to the ribs, to a rim of endothoracic fascia and muscle. Post-operative chest X-ray showed good positioning of the new diaphragmatic dome and the fundic air bubble in its correct position. No recurrence was found during the 15 month follow-up. **Discussion:** An anomaly of organogenesis during the nineth week of pregnancy can lead to diaphragmatic defect varying in location and size. The complete agenesis of hemidiaphragm is a rare finding even in new-borns. Small diaphragmatic defect with a well defined contour can be primarily repaired by directly suturing the edges of the defect. Closure of larger defects is more complex task and the recurrence rate is high. In order to eventually obtain a reliable repair many techniques have been proposed : suture to a lobe of the liver, abdominal muscle flaps and the use of several prosthetic materials. The advantage of the Gore-Tex soft tissue patch over other synthetic materials, like polypropylene mesh, lies in its full pliability. In fact, the sutures can be anchored close to the graft edge with low risk of tearing. Furthermore ePTFE's smooth surface causes fewer adhesions because of its ability to support a layer of mesothelial cells on the peritoneal surface; other prosthetic materials, like polypropylene, produce an inconsistent and disordered masothelial proliferation which favours the formation of multiple and strong adhesions. The use of Marlex meshes has been recommended because they stimulate a marked collagen ingrowth. This ingrowth is not evident with other synthetic materials such as acrylic, silastic and nylon. The real disadvantage of the intraperitoneal use of polypropylene patch lies in the its relative rigidity combined with a growth of strong adhesions on the peritoneal surface. This can lead the formation of fistulas between the organs separated by the prosthesis. We secured the ePTFE prosthetis with a "mattress non absorbable suture" (Gore Tex) The real need for surgical repair of large diaphragmatic defects, in asymptomatic adults, is debated. In these cases, in fact, the free movements of the herniated viscera within the thoracic cavity make obstruction end strangulation unlike events. In the case of partial defects of smaller size, immediate repair is recommended even in asymptomatic subjects: the risk of bowel incarceration and strangulation is high. Our experience with ePTFE suggest that this prosthesis is an adeguate and satisfactory diaphragmatic substitute which can be easily used to repair defects of large size with low risk of recurrence.
References:
Singh G and Bose SM. Agenesis of hemidiaphragm in adults. Aust NZJ Surg 1993; 63(4):327-8.
Traveline JM, Cordova F. Agenesis of the diaphragm. Am J Med 1996; 100(5):585.

TENSION FREE HERNIOPLASTY RECURRENT INGUINAL HERNIA REPAIR ; OUR EXPERIENCE
Dott. Alberto Garavello, Dott Stefano Manfroni, Dott Fabrizio Teneriello*
Ospedale "San Giuseppe" - Marino (RM)
*Ospedale "S. Filippo Neri" - Roma

Despite the new surgical approach with "tension free" techniques, recurrent hernia repair remains a difficult surgical problem.
The authors report their experience in 64 cases of recurrent inguinal hernia ; in all patients a new hernioplasty with a "tension free" technique was performed. Medium follow-up of the study was 27 months (min. 6- max 56). 3 recurrences were observed in Lichtenstein "plug" hernioplasty and 1 with the Trabucco technique. No recurrence were observed in Lichtenstein "mesh" hernioplasty group. Lichtenstein "mesh" Hernioplasty can solve every anatomical situation in hernia recurrence and good results, with little or any complication, are achievable. Plug technique is easier but recurrences in other sites of weakening are possible.

TRABUCCO *vs.* BASSINI TECHNIQUES IN THE TREATMENT OF INGUINAL HERNIA: LONG-TERM RESULTS.

G. Piccinni, B. Di Venere, M. Testini.
Clinica Chirurgica I (Dir.: Prof. G.M. Bonomo). University of Bari, Italy.

INTRODUCTION.

In a previous study (1) we carried out a perspective randomized trial between two homogeneous groups of patients affected by an uncomplicated inguinal hernia to compare Bassini vs. Trabucco repair techniques. The results in terms of clinical conditions and days of post-operative course and period of return to work, analysed with Shapiro-Wilk and t tests, showed a significant reduction of the post-operative period (2.3 vs. 3.5 days) and a significant reduction of the post-operative pain with rapid return to normal functions and to work in the patients operated on using the tension-free-technique. The aim of this study is that of analysing the results of the three year follow-up conducted on 100 patients.

MATERIAL AND METHODS.

During the period july 1993-december 1995, 100 patients (85 males and 15 females, range 18-71 years) affected by uncomplicated inguinal hernia underwent elective surgical treatment. The patients were divided into two groups of 50: group A were submitted to Bassini operation and group B underwent Trabucco operation. During a three-year follow-up we interviewed these patients registering any event or problems referred to the operation.

RESULTS.

Three patients from group A mentioned a recurrence of the hernia in the first two years. Two were re-operated using Trabucco technique. In one case the patient, a barman affected by chronic obstructive pulmonary disease presented a bilateral recurrence six months after the last operation and so underwent to a Stoppa procedure. Only one patient out of group B presented an early recurrence because of the sliding of the mesh.

DISCUSSION AND CONCLUSIONS.

We have just evaluated the advantage of the tension-free hernia repair technique above all in terms of reduced post-operative pain and fast functional recovery. After a three year follow-up we underlined the reduction of the percentage recurrence. The case of recurrence registred in our series was due to the sliding of the mesh. We want to report two cases of early nevralgia caused by genito-femoral nerve branches entrapping cause of sliding of the apex of the mesh. In the first Trabucco description the mesh is positioned on the trasversalis fascia without any fixation stitch point. In our experience we underline the importance of fixing the mesh to the tuberculum pubis and, posteriorly, to the muscles. A long-term follow-up confirm the validity of the Trabucco operation in reducing the percentage of recurrence.

REFERENCE.

1. Greco L, Piccinni G, Gentile A, Testini M, Todisco C, Regina G, Nicolardi V. La tecnica di Bassini vs. la tecnica di Trabucco nel trattamento dell' ernia inguinale. Annali Italiani di Chirurgia 1997; 68: 1-4.

RETRORECTUS PROSTHETIC MESH REPAIR

Contine A., Cirocchi R., Amoroso M., Gentile I.G., Coverelli P., Capitanucci C., Gerardi G.A., Fettucciari V., Monini A., De Santis F., De Leo S., Fabbri C.
Dipartimento di Scienze Chirurgiche, Università degli Studi di Perugia

The reported incidence of incisional hernia in patients who have undergone abdominal operations varies between 1% and 15%.

One of the alternatives for the repair of large incisional hernias is the use of a prosthetic matherial.

The placement of prosthetic material in a pocket beneath the rectus muscles and outside the peritoneum was devised in Europe by J. Rives and Rene Stoppa in the 1970s; Wantz has described the technique in the recent American literature.

We report an extensive experience with a mesh repair in which the presthetic mesh is placed intraparietally in a tension-free manner. The modified Stoppa technique involves placing a very large sheet of polypropylene mesh in the plane anterior to the posterior rectus fascia.

We reviewed retrospectively a series of 48 eventrations treated with a nonresorbable prothesis. Most of the eventrations occurred after medial laparotomies, predominantly with sub-umbilical incision.

Predisposing factors were obesity and postoperative infection of the suture.

There was none postoperative death.

Morbidity was 6% (1 respiratory complication, 1 pulmonary embolism, 1 intestinal occlusion due to loop agglutination, 1 hematomas including 1 requiring reoperation).

There were also 3 cases of infection of the suture.

PROSTETIC REPAIR FOR MIDLINE INCISIONAL HERNIA: MODIFIED RIVES' TECHNIQUE.

B.Battillocchi, L.D'Amore, D.Stabile, V.Vermeil, F.Gossetti, P.Negro.

Department of Emergency, Department of Surgery, University of Rome "La Sapienza"

Introduction

Rives' technique represents a rational and effective solution for the prosthetic repair of midline incisional hernias. The retromuscolar, prefascial mesh position must be preferred to premuscolar (Chevrel) or preperitoneal (Stoppa) implantation.

Surgical Technique

Modified Rives' technique differs from the original procedure for some technical solutions including the choice of a mixed prosthesis and the use of a stapler to secure the mesh. Principles of the repair are: a) the hernia sac is not routinely excised; b) the rectus muscles are reached by incising the posterior rectus sheet and dissected to a point beyond the lateral board of the muscles; c) the rectus sheets are closed by imbricating sutures that reduce the hernia sac into the abdomen; d) a large piece of Composix TM Mesh (Bard, Davol) is used. This mesh is constructed of a double layer of polypropylene (outer) and a single layer of e-PTFE (inner). Prosthetic mesh is placed deep to the abdominal wall muscles, between the rectus muscles and the posterior rectus sheet; e) staples or tackers are used to secure the prosthesis to a wall. Excess mesh is trimmed away; f) the linea alba is reconstructed by suturing anterior rectus sheets; g) the surgical field is drained using closed suction drains; h) prophylactic antibiotics for 5 days should be administered; i) postoperative low power abdominal X-Rays show the position of the clips.

Discussion

A recent study shows that composites with selective property of adhering to the abdominal wall would facilitate incisional hernia surgery (1). Composix TM Mesh is a new generation of prostheses. The mesh surface (polypropylene) encourages tissue ingrowth while the e-PTFE minimizes tissue ingrowth. It provides a physical barrier between the intestine and the mesh, if the peritoneum is inadvertently opened or lack of adequate tissue makes the closure impossible. The advantages of stapling technique (2) include a considerable saving of time when compared with suturing technique. It also reduces postoperative pain and unsightly skin retractions.

1.) AMID P.K. et Al.: Experimental evaluation of a new composite mesh with the selective property of incorporation to the abdominal wall without adhering to the intestine. J.Biom.Mat.Res., 28:373-375, 1994.
2) AMID P.K. et Al.: A simple stapling technique for prosthetic repair of massive incisional hernias. Am.Surgeon, 60:934-937, 1994.

PRENEURAL OR TOTAL PAROTIDECTOMY ?

Falvo L., Sorrenti S., Catania A., D'Andrea V., Dibra A., Foti N., De Antoni E.
Istituto III Clinica Chirurgica, Università "La Sapienza", Roma
Direttore: Prof. G. Di Matteo.

The surgical treatment of neoplasias of the parotid gland had in the last years a satisfactory settlement due to a nosologic systematization that has permitted to consider the histological, morphological and evolutionary aspects.
In the period 1970-1998, 301 patients were observed at 3rd Department of General Surgery, University "La Sapienza", Rome, Italy. In 238 cases (79%) the tumors came out to be benign, in 63 patients (20,9%) malignant tumours were found. In benign neoplasias the operation choice was the preneural parotidectomy, managed on 157 patients (66%); the total parotidectomy was extended on 58 patients (24,4%), whereas the conservative operations were extented in 45 patients (18,9%). In malignant tumours the mandatory choice was represented by total parotidectomy (T1-2, N0), associated with radiotherapy (T3a, N0), enlarged surgery (T2-T3a, N0) and associated to radical neck dissection (Tx, N1-2). The enlargement of the total parotidectomy was executed in 15 patients (27,3%). The complications which occurred after the operation were: in benign neoplasias the transitory deficit of the facial nerve (17,8%), in malignant neoplasias the transitory deficit of the facial nerve (42,1%), permanent deficit of the facial nerve (29,1% but in 14 patients it was already present before the operation) and prolonged lymphorrea in 2 cases (the 22% of the patients who underwent the radical neck dissection).
Recurrencies have been observed in 9,3% of pleomorph adenomas and in 6,2% of Warthin tumors with regard to benign tumours, in 26,9% in T1-2a-3a tumours and in 33,3% in T2b-3b and N+. In the malignant neoplasias the survival rate after 5 years has been of 72,8%.
In parotid neoplasms our choice of an "aggressive" surgical attitude reduces meaningly the evidence of recurrencies without any increase of the post-operative complications.

MESH REPAIR OF RECURRENT INGUINAL HERNIAS UNDER LOCAL ANESTHESIA: OUR EXPERIENCE.

Claudio Spina, Paolo Gentileschi, Francesco Russo, Piero Rossi, Pierpaolo Sileri, Giuseppe S. Sica, Vito M. Stolfi, Antonio Forlini, Achille L. Gaspari.
Department of Surgery–University of Rome "Tor Vergata"-Columbus Hospital, Rome (Italy).

Introduction: Inguinal hernia is one of the most common surgical diseases. American statistics indicate that 10-15% of all repairs are performed for recurrent hernias (1). Widespread enthusiasm for the tension-free mesh repair has developed because it's easy to perform with local anesthesia, post-operative pain is reduced, recovery is quick, and results are superb (2). The Authors report their experience with mesh repair of recurrent inguinal hernias under local anesthesia.
Materials and methods: From January 1992 to December 1998, 45 patients (43 male, 2 women; mean age: 47 ys., range 21-75 ys.) were operated for recurrent inguinal hernia at Columbus Hospital (University of Rome "Tor Vergata"). 41 hernias were recurrent and 4 re-recurrent. Primary repair was Bassini hernioplasty in 41 patients, mesh hernioplasty in 4. Mesh repair was performed with Lichtenstein technique in 41 patients and "plug" technique in 4 patients. Local anesthesia was performed in all but two patients who required general anesthesia. No emergency repair were performed. Mean follow-up period was 42 months (range 2- 84months). Follow-up was conducted only by physical examination without phone calls.
Results: There was no perioperative mortality. Postoperative morbidity included two cases of seroma and one case of scrotal haematoma. Patients were discharged the day following operation in all but two cases on second day p.o. At follow-up there was one case of recurrence, treated by plug technique.
Discussion and conclusions: Mesh repair for recurrent inguinal hernia is safe, cost- effective, easy to perform under local anesthesia unless the patient is obese or the defect is huge. Postoperative morbidity was, in our experience low, with no postoperative mortality. According to our opinion in the follow-up period physical examination is necessary once a year for the first three years, while phone calls are useless because most of the recurrences are, at least for the first period, asymptomatic.
References

1) Rutkow IM., Robbins AR.: Demographic, classificatory, and socioeconomic aspects of hernia repair in the United States Surg. Clin North. Am. 1993; 73:413-426.
2) Lichtenstein IL., Shulman AG., et al.: The tension-free hernioplasty Am. J. Surg. 1989;157:188.

LAPAROSCOPIC HERNIA REPAIR: RESULTS OF 1303 CASES.

Biondi A.,Morelli A., Freschi M., Piazzini Albani A., Spinelli L., Vitellaro M. and Novellino L.
Dept. of General and Mini-Invasive Surgery, MultiMedica Hospital, Milan, Italy

INTRODUCTION: The surgical treatment of the common inguinal hernia has been one of the most analyzed and debated topics in medicine. Recently, with the success of laparoscopic cholecystectomy, interest in minimally invasive surgical techniques has led to it's application for inguinal hernia repair. **METHODS:** From March 1992 to March 1998 we performed 1303 consecutive laparoscopic hernia repairs in 1090 patients. Three types of laparoscopic inguinal herniorrhaphies were performed; the TAPP procedure (transabdominal preperitoneal repair) was used for 1246 hernias, the TEP (totally extraperitoneal repair) was used for 54 hernias and the IPOM (intraperitoneal onlay mesh) was used for 3 hernias. 213 of the 1090 patients had bilateral hernias repaired; 184 (14,1%) of the 1303 repairs were for recurrent hernias, 10 (0,9%) hernias were strangulated. In the group of 1119 primary hernias were repaired: 656 EO (58,6%); 334 D (29,9%); 31 IO (2,8%); 52 EO+D (4,6%); 34 F (3,0%); 12 IF (1,1%). All procedures was performed under general anesthesia; three trocars were inserted, the first of 10 mm (optyview) via the umbilicus, into which the 30 degrees endoscope was inserted. The polypropylene mesh (15x9 cm) was placed in the preperitoneal space, after dissection of spermatic cord, over the myopectineal orifice, with the reconstruction of the inguinal ring. Laparoscopic hernia repair was performed in all patients. Mean operating time was 64 min (range 20-215). **RESULTS:** Patients' satisfactions was assessed using the Visick grading system: 98% of patients were satisfieds with the operation (Visick grades I e II). The follow-up was documented prospectively by use of computed data base, with a postoperative observation period ranged from 12 to 78 months and a follow-up rate of 95%. The mayor complications in the group of primary hernias were 2,2%: persistent groin pain in 6 patients (0,5%); trocar herniation in 5 (0,4%); persistent paresthesia in 4 (0,3%); seroma in 3 (0,3%); orchitis in 2 (0,2%); hemoperitoneum in 1 (0,1%); hematoma in 1 (0,1%); ductus deferens lesion in 1 (0,1%); intestinal perforation in 1 (0,1%); intestinal obstruction in 1 (0,1%). The minor complications were 2,1%. A total of 10 (0,8%) recurrences occured in all 1303 hernias treated, 7 of wich occurred after primary hernia repair (0,6%) and 3 after a recurrent hernia reparation (1,6%). The expression of the learning curve was the reduction of the mayor complications from 5,8% to 1,7% and the recurrences from 4,1% to 0,4%, testing two periods: 1992-93 (121 hernias treated) and 1994-98 (1165 hernias treated). **CONCLUSIONS:** According to our experience, the TAPP technique is sufficiently applicable as a standard method for unselected group of patients in a routine setting. It is especially suited to the repair of recurrent and bilateral hernias as well as for patients with a high risk for recurrence that can profit from a tension-free endoscopic procedure. **REFERENCES:** Leibl BJ et al.: A single institution's experience with transperitoneal laparoscopic hernia repair. Am J Surg 1998 Jun; 175 (6): 446-51.

MIXED MEDULLARY-PAPILLARY THYROID CARCINOMA ASSOCIATED WITH COLORECTAL CANCER: A CASE REPORT.

V. Pollino, P.G. Calò, G. Porcu, A. Nicolosi, A. Tarquini.
Divisione di Chirurgia Generale – Ospedale Oncologico Regionale – Università degli Studi di Cagliari

The Authors report a peculiar case of multiple primary tumors, which occurred in a 62 years-old man who synchronously developed a colorectal cancer together with a mixed medullary-papillary thyroid carcinoma. Mixed medullary-follicular or papillary carcinoma are seldom found in the thyroid gland. The first one is defined by the WHO classification as a tumour which shows both the morphological features of medullary and follicular carcinoma with immunoreactive calcitonin and thyroglobulin. The second one is not enough listed in the above-mentioned classification and reports about it are still few. As for second primary tumour coexistence, it is thought that patients with neck cancers have a high incidence of second primary lesions. In the reported case, at first, colorectal anterior resection was performed. Intra-operative exploration confirmed the multiple small liver metastases, identified before by US preoperative scan. Histological examination of them revealed to be metastases of a papillary carcinoma. The patient subsequently underwent a total thyroidectomy. In the right lobe of the gland a 6 cm diameter tumour was found which exhibited features of both medullary and papillary carcinoma and both calcitonin and thyroglobuline immunoreactivity. The immunoistochemical examination of the liver metastases revealed the same immunoistochemical findings of the primary thyroid tumour. This report further supported the diagnosis of mixed medullary-papillary carcinoma of the thyroid gland. The patient was then submitted also to a radioiodine treatment. About eight months later, the patient is well, albeit high basal calcitonin serum level persists and US scan shows liver metastasis unchanged. The recognition of the rare mixed medullary- follicular or papillary thyroid carcinoma arouses speculations regarding its histogenesis and C cells derivation. Moreover, as some Authors think, this mixed tumour might constitute a new clinicopathologic entity, different from the conventional medullary one, with a specific epidemiology, clinical course and new treatment resources. As for multiple primary tumors, antagonist hypothesis have been formulated about the process of carcinogenesis. Current genetic studies are trying to support the common clonal origin theory opposed to the field carcinogenesis concept.

REFERENCES: 1) Macak J., Vaverkova H., Dushova M. Medullary and mixed medullary-papillary carcinoma of the thyroid gland. Pathol., 89: 317-322, 1997. 2) Chung K. Y., Mukopadhyay T., Kim J. Discordant p53 gene mutations in primary head and neck cancers and corresponding second primary cancers of the upper aerodigestive tract. Cancer Res., 53: 1676-1683, 1993

PROSTHETIC MATERIALS IN LAPAROCELE REPAIR AND PRINCIPLES OF THEIR APPLICATIONS

BIONDI A. and BASILE F.
II DEPARTMENT OF EMERGENCY SURGERY – UNIVERSITY OF CATANIA (CHIEF PROF. F. BASILE)

INTRODUCTION: We retain that, in presence of laparocele, the principal indications for utilization of a prosthesis are: laparocele relapse; large laparoceles (hernial porta with a diameter >10 cm), especially if associated to atrophy and retraction of musculo-parietal aponeurotic tissues, in this case a true loss of substance is made; "marginal" laparoceles (subcostal, inguinal, suprapubic) in which closeness to unextensible structures, bony or cartilaginous, would make difficult and anyhow place under tension a possible direct suture. Since metallic prosthesis are in total disuse and those in biological material (fascia lata, dure madre,dermis) are ever less employed, the greater majority of surgeons leans towards utilization of synthetic prosthesis, especially those in non-absorbable material: in fact it has been shown that absorbable material prosthesis (polyglactin mesh, vycril net) are easily prone to relapse. **METHODS:** We have treated 198 cases of laparocele performing surgical intervention with placement of prosthesis in all patients of this group. The prosthetic materials utilized were the following: polypropylene, dacron, vicryl and PTFE. In 78 patients the prosthesis was positioned in the preperitoneal location, in the remaining 120 intraperitoneally placed. **RESULTS:** Immediate postoperative morbidity on the whole was 7,5% (15/198). Patients follow up showed relapse in 3 cases (1,5%). **DISCUSSION and CONCLUSIONS:** We must stress than an "ideal" prosthesis does not exist as yet; hower, if it did, it should have the following characteristics: biologically and chemically inert; easily moulded and elastic; resistant to traction; resistant to infections; radiotransparent; able to be icorporated to the fibroblastic reaction. A fundamental requirement for a solid repair, in fact, is complete incorporation of the prosthesis into the host tissue. The degree of infiltration on the part of the host depends mostly from the dimension of the prosthetic holes, from the superficial weaving and anatomic location. Dacron and polypropylene, due to their typical net weaving, are completely engulfed in the host's tissue reaction: these materials, in fact, upon contact with musculo-aponeurotic tissues cause an initial inflammatory reaction followed by development of granulation tissue, rich in blood vessels, fibroblasts and collagen fibers, which tend to infiltrate the weaving structure; this, towards the 40^{th} postoperative day, will be completely engulfed by such tissue. PTFE-e also determines a notable fibrotic reaction around its lamina, however, due to its compact characteristics it is not significantly infiltrated by collagen fibres or cells, neither is an intense inflammatory reaction on its back noted. It determines, due to these characteristics of biologic inertia, the formation of adhesions which poorly hold onto endoperitoneal viscerae; its characteristics are further exalted by the more recent prosthesis denominated "Mycro-Mesh", characterized by decreased thickness with further improvement in moulding properties, and by the presence of macropores, which eliminate the potential risk of seromas while favouring infiltration of granulation tissue. **REFERENCES:** Varoli M. et al.: The rational use of prosthesis in laparocele. G Chir 1998 Jan-Feb; 19 (1-2): 51-4.

Hernia repair with PHS® (Prolypropylene Hernia System. Ethicon®). A new opportunity.

M.Scatizzi, S.Cantafio, R.Naspetti and L.Boffi.
1° U.O. Chirurgia Generale e Trapianti d'Organo, Ospedale di Careggi, Firenze

Introduction. Inguinal hernia represents a considerable amount of the General Surgery series. We believe that nowadays it is mandatory the use of a prosthesis and a non invasive technique. In our Department since 1991 we have using the plug and polypropylene mesh placed under the fascia technique according to the Lichtenstein procedure modified by Trabucco in the majority of our primary inguinal hernias. **Methods**. We had the chance to test in advance the new prosthesis PHS® (Prolypropylene Hernia System. Ethicon®)that develops the method with one prosthesis only that assembles the plug as properitoneal portion in one only body (connector) to the subfascial part. **Results.** From June through December '98, 25 prosthesis PHS® were applied. The patients were 20 males and 1 female. Mean age 61.5±9.3 yr. Of these 17(81%) presented with unilateral inguinal hernia and 4(19%)with bilateral inguinal hernia. Skin incision was 5 cm long and above the inguinal ligament. Among the 25 prosthesis applied 4(16%) were used for direct inguinal hernias; 18(72%) for indirect inguinal hernias and 3(12%) for indirect and direct inguinal hernias. Mean time for the procedure was 41±10 minutes. In the regard of anaesthesia 12 (57%) patients underwent spinal anaesthesia and 9(42.8%) local anaesthesia. Mean hospital stay was 2 days in 81% of the patients, 3 days in 14.4 %, whereas 4.8% of the patients were admitted as one day surgery. Pain medication use was of 0.8 phials during the first 24 hours. Return to normal activity was in 14.3 days. The follow up period is too short to analyse the recurrence rate. **Discussion and Conclusion.** The placement of the prosthesis PHS® was simple and did not imply either modifications of the operative technique or of the operative time. The first 5 placements represented the "learning curve". The particular shape of the prosthesis, makes the direct inguinal hernia repairs easier and safer even in large defects of the posterior wall of the inguinal canal. The PHS® is suitable also in the indirect inguinal hernias with the enlargement of internal inguinal ring. We believe not advisable the use of PHS® in the indirect inguinal hernias with normal ring, since the advantages would be cancelled by the necessity to widen that structure in other to position the prosthesis. Post-operative pain did not differ with cases treated with conventional prosthesis. Other parameters studied were not dissimilar from the good results already obtained with miniinvasive technique used. In the placement of the PHS we noticed few limits, which are susceptible to improvement: particularly the decentralisation of the connector and the shaping of the subfascial portion in some cases would make easier the use and more effective the procedure. We believe therefore, that PHS is useful in the prospective of devices available for the inguinal hernia repair. **References** (1) LICHTENSTEIN IL, et al. Hernia repair with polypropylen mesh. An improved method. AORN J,1990 Sep 52:3, 559-65. (2) TRABUCCO EE. The office hernioplasty and the Trabucco repair.AnnItal Chir 1993 Mar-Apr 64:2,127-149.

COMPLICATIONS OF CENTRAL VENOUS ACCESS SYSTEMS: A COMPARISON BETWEEN TWO TECHNIQUES

Pierpaolo Sileri, Paolo Gentileschi, Giuseppe S. Sica, Vito M. Stolfi, Antonio Forlini, Claudio Spina, Piero Rossi, Achille L. Gaspari.
Department of Surgery, University of Rome, Tor Vergata- Columbus Hospital-Rome, Italy.

Introduction: Totally implantable systems (Port a Cath, PAC) play an important role for patients who need a central venous access available for infusion of chemoterapheutic drugs (1). We evaluated immediate and long term complications of two different implant techniques.

Materials and methods: From January 1995 to December 1998, 58 PAC systems were implanted in 56 neoplastic patients (33 men, 23 women; mean age 58 ys., range 39-70 ys.). Two patients underwent operation to change PAC systems after 28 days and 45 days respectively for infection and obstruction. In all patients the operation was performed under local anesthesia after antibiotic prophylaxis with a cefalosporin. The devices were inserted in 26 cases by vein surgical cannulation (group I) and by vein puncture in 32 cases (group II). The device was inserted into cephalic vein through an incision over the projection of the deltopectoral sulcus in group I. In group II patients the system was inserted into subclavian vein (25 cases) or internal jugular vein (7 cases). After operation in all patients a chest X-ray was performed to evaluate the correct positioning of the system and to exclude immediate complications. The manteinance requirements of the devices were based on monthly irrigations with heparinized solution.

Results:Two patients (3.4%) had immediate complications after percutaneous insertion in subclavian vein (1 pneumotorax and 1 insertion in subclavian artery). Late complications occurred in 6 patients (10.3%): subclavian thrombosis in 1 case and cephalic vein thrombosis in 1 case, infection of the port in 2 cases (1 for each group) and obstruction of the cathether in 2 cases of group II. PAC systems were mantained for a mean period of 379 days (range between 28 days to 1059 days).

Discussion: We observed early complications only in group 2 patients (vein puncture) probably because the surgical cannulation of cephalic vein, performed in group 1 patients, is a safer procedure. For this reason surgical vein cannulation is, according to our opinion, to be preferred in a outpatient setting. The majority of late complications are probably related to inadeguate postoperative care and management of PAC. Infection, thrombosis and obstruction infact occurred after several weeks from operations. Significative differences in terms of mean operative time and patients discomfort were not noted.

References

1)Freytes CO., Reid P., Smith KT.: Long term experience with totally implanted catheter system in cancer patients. **J. Surg. Onc. 1990;45:295-9**